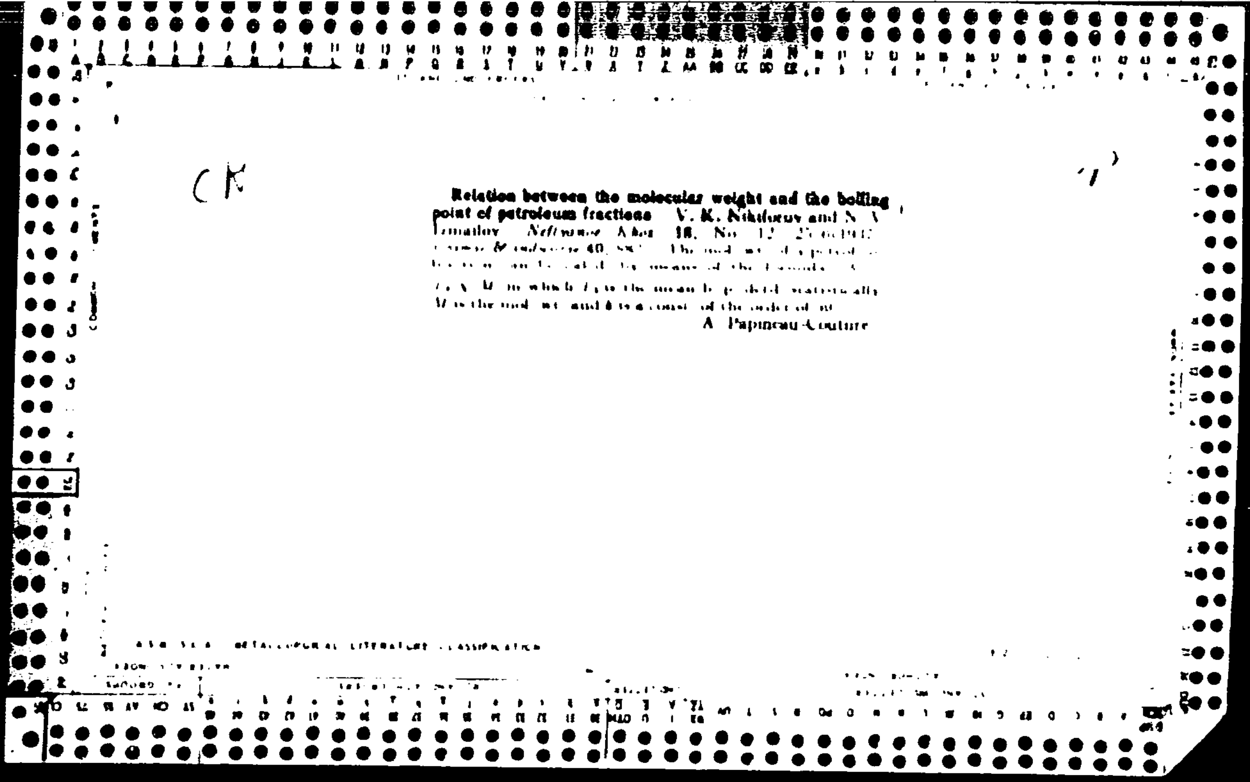

CK

Relation between the molecular weight and the boiling point of petroleum fractions. V. K. Nikiforov and S. A. Ismailov. *Neftyanoe Khoz.* 18, No. 12, 25 (1940); *Chem. & Industry* 40, [illegible] The mol. wt. of a petroleum fraction can be calcd. by means of the formula [illegible] in which *t* is the mean b.p. detd. statistically, *M* is the mol. wt. and *k* is a const. of the order of [illegible]

A. Papineau-Couture

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

CW

2

Wave nature of the periodic reaction of silver dichromate. V. K. Nikiforov and S. S. Kharamonenko. *Acta Physicochim. U. R. S. S.* 8, 96–102(1938)(in English).—Periodic pptn. of $Ag_2Cr_2O_7$ was performed in a thin layer of gelatin on a glass plate. A narrow slit in a thin wax partition served as a center of a new wave train according to Huygen's principle. It was observed that when these pptn. waves passed into a different concn. of gelatin, refraction occurred.

Gregg M. Evans

COMMON ELEMENTS

COMMON VARIABLES INDEX

OPEN

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

NIKIFOROV, V. K.

"Experimental Study of the Effect of Diffusion Fields on Compound Mediums." (Dissertation for Degree of Candidate of Chemical Science) Moscow State Pedagogic Inst imeni V. I. Lenin, Moscow, 1955

SO: M-1036, 2 Mar 56

L 6517-66 EWT(m)/EWP(i)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) IJP(c)

ACC NR: AP5024863 MJW/JD/HW SOURCE CODE: UR/0136/65/000/010/0079/0083

AUTHOR: Korshchikov, V. D.; Zasukha, P. F.; Kozlov, G. D.; Nikiforov, V. K.
44,55 44,55 44,55 44,55

ORG: none

23
B

TITLE: Conditions of rolling aluminum-clad steel plates

SOURCE: Tsvetnyye metally, no. 10, 1965, 79-83

TOPIC TAGS: steel, stainless steel, steel plate, bimetallic plate, clad plate, aluminum alloy clad plate, stainless steel plate, plate rolling, warm rolling/ 1Kh18N9T steel, 1Kh21N5T steel, 3s steel, SkhL4 steel, 45G17Yu3 steel, AMg3 alloy, AMg5V alloy, AMg6 alloy

ABSTRACT: The technology of rolling bimetallic plates such as 1Kh18N9T, 1Kh21N5T stainless steel, or St.3_s, SKhL-4, and 45G17Yu3 ship-building steel plates 6—15 mm thick, 200—300 mm wide, and 1000—2500 mm long clad with AMg3, AMg5V, and AM6 aluminum alloys has been developed by the Ural Institute of Ferrous Metallurgy in cooperation with the Mikhailovskiy plant. Thoroughly cleaned aluminum-alloy plates are preheated to 350—400C and placed on steel plates preheated to 150—200C. The pack is then rolled in one pass with an aluminum-plate reduction up to 75% and without deformation of the steel plate. The temperature of the plate after rolling is 230—280C. This method was used for large amounts of bimetallic plates in various

Card 1/2 UDC: 621.9-419:621.771.2

0901 1705

L 6517-66

ACC NR: AP5024863

combinations and thicknesses. The bond strength in shear amounts to 10 kg/mm^2 and in tension to 17 kg/mm^2. Orig. art. has: 3 figures and 2 tables. [AZ]

SUB CODE: MM/ SUBM.DATE: none/ ORIG REF: 003/ ATD PRESS: 4139

nw

Card 2/2

[illegible]

Radioisotope [illegible] thickness control during automatic sheet-metal work. Kuz.-shtam. proizv. 7 no.8:9-13 Ag '65. (MIRA 18:9)

KORSHCHIKOV, V.I.; [illegible], I.F.; K[illegible]OV, [illegible]; NIKIFOROV, [illegible]

Rolling parameters of structural steel [illegible].
Stal' 22 no.11:10[illegible]3 [illegible]
(MIRA [illegible])

ACC NR: AP6033617 SOURCE CODE: UR/0136/66/000/010/0068/0070

AUTHOR: Zasukha, P. F.; Bukhvalov, O. B.; Yershov, A. A.; Nikiforov, V. K.

ORG: none

TITLE: Rolling of ASM alloy-clad steel with an aluminum insert

SOURCE: Tsvetnyye metally, no. 10, 1966, 68-70

flat plate, sheet metal, metal metal rolling, low carbon aluminum,
TOPIC TAGS: aluminum alloy, cladding, ~~aluminum alloy clad~~ steel, clad metal rolling/ASM alloy

ABSTRACT: The effect of antimony content in the ASM alloy (3.5—6.5% Sb, 0.3—0.7% Mg, 0.3—0.7% Fe, 0.3—0.5% Si, Al-balance) on bond strength between the alloy cladding and a low-carbon steel base has been investigated. Low-carbon steel plate was clad with pure aluminum or alloys containing up to 8% antimony. It was found that the bond strength between pure aluminum and steel reached 6.4 kg/mm^2; it was reduced to 6.0 kg/mm^2 in the case of alloy containing 2% antimony, and 3.0 kg/mm^2 in alloy with 8% antimony. The steel-ASM alloy interface contained numerous brittle crystals of AlSb compound, which caused a separation of cladding. To eliminate the effect of antimony and other alloying elements on bond strength, the cladding was done with an aluminum inter-

Card 1/2 UDC: 669-419.4:621.771

1. NIKIFOROV, [illegible] M.

2. USSR (600)

4. Packaging

7. Some measures for improving automatic machines for cutting and packing margarine. Masl. zhir. prom. 17, no. 3, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

NIKIF[illegible], V. [illegible]

[illegible] dlia [illegible] materialov [[illegible]]. [illegible]
[illegible], 1[illegible].

So: Monthly List of Russian A[illegible], Vol. [illegible] No. 12 March [illegible].

SEROV, Aleksandr Vladimirovich, dotsent; SANYUKEVICH, Nikolay Andreyevich, starshiy prepodavatel'; BYTSKO, Vladimir Aleksandrovich, assistent; VOLGIN, Vitaliy Pavlovich, assistent; NIKIFOROV, Vasiliy Maksimovich, kand.tekhn.nauk; VOZNESENSKIY, N.P., prof., doktor tekhn. nauk, retsenzent; KISHINSKIY, M.I., red.; PITERMAN, Ye.L., red. izd-va; KARASIK, N.P., tekhn.red.

[Use of machinery in logging camps] Ekspluatatsiia mashin v lesozagotovitel'nykh predpriiatiiakh. Moskva, Goslesbumizdat, 1959. 280 p. (MIRA 13:3)

1. Kafedra "Tyagovyye mashiny" Moskovskogo lesotekhnicheskogo instituta (for Servo, Sanyukevich, Bytsko, Volgin, Nikiforov).
(Logging--Machinery)

NIKIFOROV, V.M., kand.tekhn.nauk

Building up machinery parts with metals. Nauch. trudy [illegible] no.10:3-49 '60. (MIRA 14:3)
(Agricultural machinery--Maintenance and repair)

NIKIFOROV, PROF V. M. 191T60

USSR/Hydrology - Canals, Construction of Sep 51

"Application of Tower Excavators to Construction of Canals," Prof V. M. Nikiforov

"Gidrotekh i Meliorat" Vol III, No 9, pp 36-38

Analysis of construction methods led author to conclusion that best equipment in canal construction consists in tower excavators. They gave excellent results in construction of hydroelec power station in Svir in 1931. Author suggests equipment consisting of 2 tower excavators of similar construction and auxiliary tail tower installed on one well perpendicularly to the lengthwise canal axis.

191T60

NIKIFOROV, V. M.

Technology of metals; textbook Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1952. 392 p. (53-39925)

TN690.N5

[illegible], V. .

Tekhnologiya metallov [The technology of metals] Moskva, [illegible], [illegible] p. illus., diagrs., tables. Bibliography: p. [illegible]

NIKIFOROV, Vikentiy Markianovich; RYBIN, V.V., inzhener, retsenzent; SOKOLOV, A.N., kandidat tekhnicheskikh nauk, redaktor; AZAROV, A.S., kandidat tekhnicheskikh nauk, redaktor; LEYKINA, T.L., redaktor izdatel'stva; POL'SKAYA, R.G., tekhnicheskiy redaktor

[Short course in the technology of metals] Kratkii kurs tekhnologii metallov. Izd. 2-oe, perer. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 342 p. (MLRA 9:10)
(Metals)

NIKIFOROV, V. M.

Nikiforov, V. M.

"Investigation of a method of restoring parts by building up metals."
Min Higher Education USSR. Moscow Forestry Engineering Inst. Moscow.
1956. (Dissertation for the Degree of Candidate in Technical Sciences).

Knizhnaya letopis'
No. 21, 1956. Moscow.

PHASE I BOOK EXPLOITATION 969

Nikiforov, Vikentiy Markianovich

Kratkiy kurs tekhnologii metallov (Brief Course in Metals and Their Processing) 3rd ed. Moscow, Mashgiz, 1958. 354 p. 150,000 copies printed.

Reviewer: Rybin, V.V., Engineer; Eds.: Sokolov, A.N., Candidate of Technical Sciences; and Azarov, A.S., Candidate of Technical Sciences; Ed. of Publishing House: Chfas, M.A.; Tech. Ed.: Pol'skaya, R.G.; Chief Ed. (Leningrad Divison, Mashgiz): Bol'shakov, S.A.

PURPOSE: This is a textbook for technical schools.

COVERAGE: The book contains data on the production of pig iron, steel, and nonferrous metals, testing of metals, fundamentals of metallography, heat treatment and thermochemical treatment of metals, corrosion of metals, as well as information on casting, pressure-forming of metals, machining, welding, and soldering. No personalities are mentioned. There are 32 references, all Soviet.

Card 1/13

25(1) PHASE I BOOK EXPLOITATION SOV/1933

Nikiforov, Vikentiy Markianovich, Georgiy Ivanovich Pogodin-Alekseyev, Doctor of Technical Sciences, Professor, Vasiliy Alekseyevich Proskuryakov, Vladimir Aleksandrovich Proskuryakov, and Konstantin Ivanovich Tkachev

Tekhnologiya vazhneyshikh otrasley promyshlennosti. Ch. I: Metallurgiya i metallovedeniye; uchebnoye posobiye dlya vysshikh partiynykh shkol (Technology of the Most Important Industries. Pt. 1: Metallurgy and the Science of Metals; a Textbook for Higher Party Schools) Moscow, Izd-vo VPSh i AON pri TsK KPSS, 1959. 271 p. Errata slip inserted. 25,000 copies printed.

Sponsoring Agency: Kommunisticheskaya partiya Sovetskogo Soyuza. Tsentral'nyi komitet. Vysshaya partiynaya shkola. Kafedra promyshlennogo proizvodstva i stroitel'stva.

Ed. (Title page): G. I. Pogodina-Alekseyeva, Doctor of Technical Sciences, Professor; Eds. (Inside book): S. Ya. Golovin, and D. O. Slavin; Tech. Ed.: K. M. Naumov.

~~Card 1/7~~

Technology of the Most Important (Cont.) SOV/1933

PURPOSE: This book is intended to serve as a manual in higher Party schools, and may also be used by general readers interested in widening their knowledge of the given branch of industry.

COVERAGE: This manual was written in accordance with the curriculum of the four-year course entitled "Technology of the Most Important Branches of Industry" given at higher Party schools. The book is divided into two parts: "Metallurgy and Mining of Raw Materials and Fuels" and "Physical Metallurgy and Heat Treatment of Metals." The authors present the fundamentals of the mining and exploitation of the basic raw materials and fuels and the basic principles of metallurgy. There are numerous diagrams and illustrations explaining the basic underground and open pit mining methods. Cross-sections of oil wells show the principles of oil production. The authors trace the flow in the metallurgial industry from the smelting of ores to the final heat treatment of the metals. Special features in producing nonferrous metals and the most commonly used alloys are explained. Problems of corrosion and corrosion prevention are discussed. In the introduction the authors give a brief outline of the new Seven-Year Plan 1959-1965, mentioning the production targets in metallurgy for those years and the new establishments under construction. No references are listed.

Card 2/7

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PART I. METALLURGY AND MINING OF RAW MATERIALS AND FUELS

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1. Coal beds and deposits 8
2. Underground coal-mining methods 13
3. Open pit mining of coal. Hydraulicking and underground gasification of coal 29
4. Mining of ores 35

Ch. II. Oil and Natural Gas (Proskuryakov, V.A., Docent [Leningrad])
1. Origin of oil and oil deposits 38
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3. Exploitation of oil wells 44
4. Properties of natural gas 47
5. Exploration and exploitation of gas deposits 50
6. Transport and storage of gas 52

Ch. III. Ore, Fuels, and Refractories (Nikiforov, V.M., Engineer, and K.I. Tkachev, Docent)

1. General information on metallurgy and its development 55
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Ch. IV. Production of Pig Cast Iron (Nikiforov, V.M., Engineer)

1. Design of the blast furnace and of the foundry shop 69
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Ch. V. Production of Steel (Nikiforov, V.M., Engineer)

1. Production of converter steel 86
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4. Pouring of steel 106

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1. Concentration of nonferrous ores and roasting of ores and concentrates 111

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PART II. PHYSICAL METALLURGY AND HEAT TREATMENT OF METALS

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1. Mechanical testing methods 137
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Ch. II. Fundamental Theories of Alloys (Pogodin-Alekseyev, G.I., Professor, and V.M. Nikiforov, Engineer)
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Technology of the Most Important (Cont.) SOV/1933

Ch. VI. Nonferrous Metal Alloys (Nikiforov, V.M., Engineer)
  1. Copper-base alloys 253
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Ch. VII. Corrosion of Metals and Preventive Measures (Nikiforov, V.M., Engineer)
  1. Basic facts about corrosion 264
  2. Protection of metals from corrosion 267

AVAILABLE: Library of Congress

Card 7/7

GO/fal
8-5-59

NIKIFOROV, V.M.

25(1, 7) PHASE I BOOK EXPLOITATION SOV/3281

Berezin, Boris Prokop'yevich, Aron Abramovich Mosyak, Vikentiy Markianovich Nikiforov, Georgiy Ivanovich Pogodin-Alekseyev, Nikolay Dmitriyevich Titov, Boris Gavrilovich Shpital'nyy, and Nikolay Aksent'yevich Shcherbina

Tekhnologiya vazhneyshikh otrasley promyshlennosti, chast' 2: Mashinostroyeniye; uchebnoye posobiye dlya vysshikh partiynykh shkol (Manufacturing Processes of the More Important Branches of Industry, Part 2: Machinery Manufacture; Manual for Higher Party Schools) Moscow, Izd-vo VPSh i AON pri TsK KPSS, 1959. 376 p. 15,600 copies printed.

Sponsoring Agency: Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola. Kafedra promyshlennogo proizvodstva i stroitel'stva.

Eds.: G.I. Pogodin-Alekseyev, A.G. Kokoshko, and D.R. Beyzel'man; Tech. Ed.: K. M. Naumov.

PURPOSE: This textbook is intended for students of higher party schools.

COVERAGE: The book deals with manufacturing processes in the machine industry. Rolling, drawing, pressing, forging, and stamping of metals are discussed in Part I, founding in Part II, welding and gas cutting in Part III, and metal cutting in Part IV. No personalities are mentioned. There are no references.

Card 1/9

NIKIFOROV, Vikentiy Markianovich; RYBIN, V.V., inzh., retsenzent;
LEYKIN, A.Ye., inzh., retsenzent; SOKOLOV, A.N., dotsent, kand.
tekhn.nauk, red.; BOROLULINA, I.A., red.izd-va; SHCHETININA,
L.V., tekhn.red.

[Brief course on the technology of metals] Kratkii kurs tekhnologii metallov. Izd.4., perer. i dop. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1960. 368 p. (MIRA 13:12)
(Metals) (Metalwork)

NIKIFOROV, Vikentiy Markianovich; RYBIN, V.V., inzh., retsenzent;
LEYKIN, A.Ye., inzh., retsenzent; SOKOLOV, A.N., dots.,
kand. tekhn. nauk, red.; DENINA, I.A., red.izd-va;
SHCHETININA, L.V., tekhn. red.

[Brief course on the technology of metals] Kratkii kurs tekhnologii metallov. Izd.4., perer. i dop. Moskva, Mashgiz, 1963. 368 p. (MIRA 16:10)
(Metallurgy) (Metalwork)

NIKIFOROV, Vladimir Nikolayevich; NOCHEVKIN, V.N., red.; TIMOFEYEVA,
N.V., tekhn. red.; VLADIMIRSKAYA, L.S., tekhn. red.

[Uninterrupted employment record] Nepreryvnyi trudovoi stazh. Moskva, Gos. izd-vo iurid. lit-ry, 1961. 38 p. (IUridicheskie konstul'tatsii dlia naseleniia v voprosakh i otvetakh, no.21) (MIRA 15:2)

(Labor laws and legislation)

9,6150 (also 4702)

S/169/62/000/008/072/090
E032/E114

AUTHORS: Yefremov, A.I., Podmoshenskiy, A.L., Ivanov, M.A., Nikiforov, V.N., Yefimov, O.N.

TITLE: Filtering apparatus for the study of short-wave solar radiation

PERIODICAL: Referativnyy zhurnal, Geofizika, no.8, 1962, 17, abstract 8 G 128. (In the Symposium: 'Iskusstv. sputniki Zemli' ('Artificial Earth Satellites') no.10, M., AN SSSR, 1961, 48-54)

TEXT: A brief description is given of the method and apparatus used on a satellite to study the intensity of short-wave solar radiation by isolating different spectral regions with the aid of filters. The spectral sensitivity of the pulse counting radiation detectors, the secondary electron multipliers of the open type with BeO and SrF_2 photocathodes, and also the spectral sensitivity of the apparatus with the various filters [(Cu, Be, Al, $(CH)_n$, LiF] are described. The advantages of this method as compared with the counter method are emphasised; it is possible to use an extensive

Card 1/2

Filtering apparatus for the study... S/169/62/000/008/072/090
E032/E114

selection of filters with a single sensitive element capable of covering a wide spectral region (from X-rays to the ultraviolet), the lower sensitivity to the cosmic ray background, and the very wide range of the counting rates which can be recorded. Provision was made for regular zero checks and also checks of the overall sensitivity. A photograph and a block diagram of the apparatus are given, the electronic circuits (partly transistorised) are described, and the operation of a two-lens optical probe of the automatic switch, which operates when solar radiation enters the device, are described. The instrument is capable of recording the short-wave emission of solar flares from a satellite.
8 references.

[Abstractor's note: Complete translation.]

Card 2/2

NIKIFOROV, V.N.

Inhalation of penicillin, streptomycin, and novocaine solution aerosols in the treatment of resistant diphtherial bacteria carriers. Pediatriia no.4:53-54 Jl-Ag '54. (MLRA 7:10)

1. Iz kliniki infektsionnykh bolezney II Moskovskogo meditsinskogo instituta imeni I.V.Stalina (dir. prof. A.F.Bilibin)
 (DIPHTHERIA, prevention and control,
 penicillin, procaine & streptomycin aerosol ther. of bact. carriers)
 (PENICILLIN, therapeutic use,
 diphtheria prev., penicillin, procaine & streptomycin aerosol ther. of bact. carriers)
 (PROCAINE, therapeutic use,
 diphtheria prev., penicillin, procaine & streptomycin aerosol ther. of bact. carriers)
 (STREPTOMYCIN, therapeutic use,
 diphtheria prev., penicillin, procaine & streptomycin aerosol ther. of bact. carriers)
 (AEROSOLS, therapeutic use,
 penicillin, procaine & streptomycin ther. of diphtheria carriers)

NIKIFOROV, V.N.

Cutaneous form of anthrax and bacteremia. Zhur.mikrobiol.epid.i
immun. 31 no.8:122-128 Ag '60. (MIRA 14:6)

1. Iz Instituta eksperimental'noy biologii i meditsiny sibirskogo
otdeleniya AN SSSR.
(ANTHRAX) (SEPTICEMIA)

NIKIFOROV, V.N.

Rate of excretion of Bacillus anthracis under various methods of therapy of cutaneous forms of anthrax. Zhur.mikrobiol.epid.i immun. 31 no.9:118-124 S '60. (MIRA 13:11)

1. Iz Otdela krayevoy patologii Sibiri Instituta eksperimental'noy biologii i meditsiny Sibirskogo otdeleniya Akademii nauk SSSR.

(ANTHRAX)

[illegible]

[illegible] V.A., [illegible]ik, [illegible]

[illegible], red.; [illegible]

[illegible]

[illegible] Institut [illegible]

[illegible]ikiforov, [illegible]

[illegible]radskogo [illegible]

[illegible]nge-Vechtomov, [illegible] mikro-

[illegible]khimic[illegible]

[illegible]ologii AN [illegible]

[illegible], [illegible], inzh.; [illegible], [illegible], [illegible]; YA[illegible], [illegible], [illegible] [illegible]

Automatic [illegible] of the [illegible] to the degree of rarefication [illegible]

[illegible]

V[illegible]DIN, Ye.P., NIK[illegible]

Stroboscopic aut[illegible] [illegible] [illegible]graph. [illegible]
eksp. 8 no.6:106-112 [illegible]. M[illegible]

BLINCHEVSKIY, G.K.; NIKIFOROV, V.P.; VRUTSEVICH, Z.A.

Clamps for testing standard flat specimens on the RM-500 machine.
Zav.lab. 22 no.1:123 '56. (MLRA 9:5)

1. Institut fizicheskoy khimii Akademii nauk SSSR.
(Testing machines)

SOV/137-58-12-24282

Translation from: Referativnyy zhurnal Metallurgiya, 1958, Nr 12, p 51 (USSR)

AUTHORS: Boldin, V. V., Gus'kov, V. M., Gupalo, I. P., Kil', I. G., Nikiforov, V. P.

TITLE: Development and Improvement of Electrolytic Aluminum Production in USSR Plants (Razvitiye i usovershenstvovaniye elektroliticheskogo polucheniya alyuminiya na zavodakh SSSR)

PERIODICAL: V sb.: Legkiye metally. Nr 4. Leningrad, 1957, pp 56-61

ABSTRACT: Design and experimentation toward development of a powerful 120-130,000 amp cell with top delivery of current is coming to a conclusion. In these baths the gas take-off is right over the crust of the electrolyte. This arrangement sharply reduces the amount of gas loss and increases the concentration of fluorine compounds in the gases. This makes regeneration of fluorine salts from them a real possibility. 1952-55 saw a jump in electrolysis engineering, and the major aluminum plants began to increase anode cd to 0.9-1.0 amps/cm^2 with simultaneous acidification of the baths to cryolite ratios ($NaF:AlF_3$) of 2.3-2.5, and reduction in the number of anode effects to 0.2-0.5 per bath per day. The Al level in the bath is held

Card 1/2

SOV/137-58-12-24282

Development and Improvement of Electrolytic Aluminum Production in USSR Plants

at about 20 cm and the bath level at 20-25 cm Cells now in operation are to gain 20% in output in the immediate future by increase in current intensity. This will require reduction in the distance between electrodes, introduction of special additives into the cells to increase electroconductivity or current efficiency, increase of anode width up to 300 mm, increase in anode-rod size and change in shape thereof, and increase in the cross section of cathode rods

I. G.

Card 2/2

137-58-6-11895

Translation from Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 102 (USSR)

AUTHOR: Nikiforov, V.P.

TITLE: Progress in Aluminum Electrolysis Procedures (Razvitiye tekhnologii elektroliza alyuminiya)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 8, pp 43-49

ABSTRACT: The past 11 years have seen the following changes in the operational indices of line II of the Urals Aluminum Plant: from 51,052 amps in 1946, I rose to 63,408 in 1956, Al yield per bath rose from 339.0 kg/day to 443.2 kg/day, current efficiency improved from 82.34 to 86.64%, and power efficiency from 57.31 to 59.93 kg/kwh. Mean potential per bath rose from 4.827 to 4.853 volts. The increase in the output per cell from 339.0 to 443.2 kg/day took place through an increase in I (accounting for a gain of 82.1 kg/day) and, to a lesser degree, through the rise in current efficiency (an increase of 22.1 kg/day). The possibility of significant increase in I is evident from an analysis of the thermal equilibrium of the cell, whence it follows that the higher the heat losses and current efficiency and the lower the heating voltage the greater I has to be to

Card 1/2

137-58-6-11895

Progress in Aluminum Electrolysis Procedures

preserve thermal equilibrium with the cell at a constant temperature. Introduction of up to 5.47% CaF_2 into the electrolyte increases current efficiency by ∿4% and leads simultaneously to a reduction from 51 to 28-31 kg/t in the amount of carbon foam produced. The change in the NaF.Al_3 ration in the electrolyte from 3.00 to 2.42 leads to a reduction in the solubility of Al in the electrolyte and to an increase in the current efficiency. From 1946 to 1956 the depths of metal in the baths have been as follows in cm. 19.4, 11.0, 15.2, 21.5, 31.4, 35.4, 27.5, 28.6 30.4 25.5, and 25.8, and the depth of electrolyte has been, respectively, 34.5, 33.4, 27.5, 27.7, 28.0 (50 g), 26.4 (52 g), 24.4, 22.7, 21.6, and 19.1 An increase in the layer of molten Al, which is highly conductive of heat, makes possible rapid removal of excess heat from the central portions of the bath and equalization of temperature over its entire area. Constancy of electrical conditions is a very important condition for normal functioning of the cell, particularly in cases in which there is a shifting of the metal in the bath, which results from interaction of the current flowing through the molten conductor and the magnetic field created by the leads.

I.G.

1. Aluminum--Electrolysis 2. Aluminum--Processing 3. Electrolytes --Performance 4. Electrolysis--Efficiency

Card 2/2

S/182/60/000/012/007/010
A161/A030

AUTHOR: Nikiforov, V.P.

TITLE: Combustion of Natural Gas During Nonoxidizing Steel Heating in Open-Flame Furnaces

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, 1960, 2 No.12, pp. 26-30

TEXT: The complex processes in the first combustion stage of methane in open-flame steel furnaces used for heating steel for pressure working have scarcely been studied before, though the heating method is well known. Experiments have been carried out at TsNIITMASh laboratory in a full-scale chamber furnace with 1 m^2 floor and two burners with a controllable flame length, firing Moscow city network gas. The furnace was heated to gas-air mixture ignition point (~700°C); the constant fuel feed (~66 m^3/hr) was maintained by precision flow meter diaphragms and a micro-manometer; air feed was varied; combustion products were sampled after stabilization of temperature (after 3-4 hrs burning with constant air-gas ratio) measured with a platinum-platinumrhodium thermocouple and an electronic potentiometer. The observed discrepancy between the calculated theoretical temper-

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atures and the real measured, lead to the conclusion that the methane oxidation and decomposition reactions in incomplete combustion are predominantly chain reactions. (Details of the discrepancy analysis are not included for lack of space in the article). The experiment results are illustrated by graphs. Conclusions: 1) The conventional theoretical calculations of temperature and of the composition of combustion products of methane only give good results with stoichiometric or excessive air feed, but at incomplete combustion they can lead to gross errors because of not taking into account the effect of strong factors influencing the direction and degree of development of complex chain processes. 2) For practical application, the preparation of gas-air mixture before the outlet into the work space in the furnace is particularly important. Correct preparation will result in fast stabilization of the atmosphere and the two obligatory conditions: a) the correct gas temperature and relatively even temperature field; b) the optimum gas composition throughout the furnace work chamber:

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$$\frac{CO_2}{CO} \approx 0.3 \text{ and } \frac{H_2O}{H_2} \approx 0.8.$$

The major problem is to create the conditions for completion of methane decomposition reaction within the burner duct. A favourable combination of temperature and time belongs to it in the first line. 3) The expected preheating temperature of primary air must be considered in selection of the burner productivity and the burner duct design. Naturally, lower primary air temperature has to be compensated by a correspondingly longer time in the burner duct. This can be achieved either by lower burner productivity, or by larger duct dimensions. The practical possibilities of such compensation are limited by the costs of too complex designs, therefore, the modern working forging furnaces, which have to work at a great pace, will heed primary air preheat to 900-1000°C. 4)The gas fuel differing by chemical composition from natural will require another preheat temperature, e.g., in the case of coke gas with 25-30% methane, the air preheat temperature may

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be lower and time of gas-air mixture in the burner duct shorter, and the air preheat level will be determined mainly by the required temperature in the work chamber and the required thermal efficiency of the furnace. There are 9 figures and 8 references: 7 Soviet and 1 English. (Ref.4, Pring, J.N. and Fairlee, D.M., Methane Equilibrium, Journal of the Chemical Society, (London), v 101, pt.I, 1912).

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Fig. 2 - Dependence of heat consumption for methane decomposition reaction on the gas burning process. ① Heat consumption for methane decomposition reaction, in thousands kcal/hr; ②. Air consumption factor, $\alpha_{в}$.

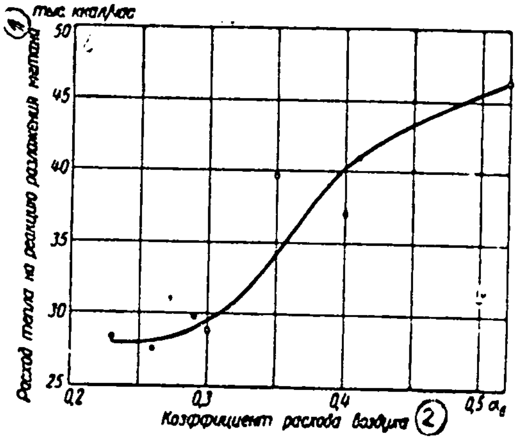

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Fig. 3 - The composition of "dry" combustion products (free of nitrogen) in the furnace chamber determined in experiments. ⓧ - Content of the main components, in volume % of "dry" mixture.

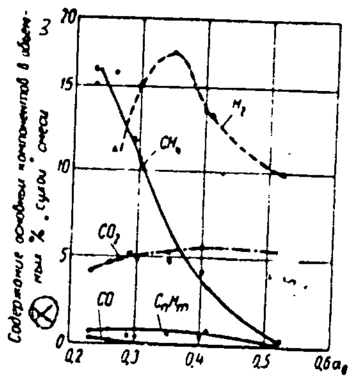

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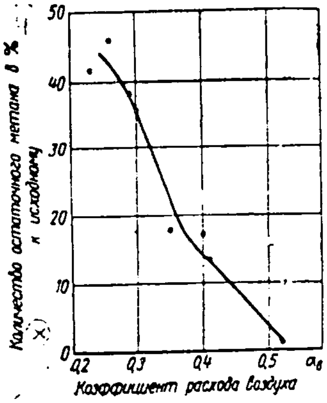
Fig. 4 - Dependence of residual methane quantity in combustion products of Moscow city network gas at different air consumption factor values (α_6) (experiment data). (x) Quantity of residual methane, in % of initial.



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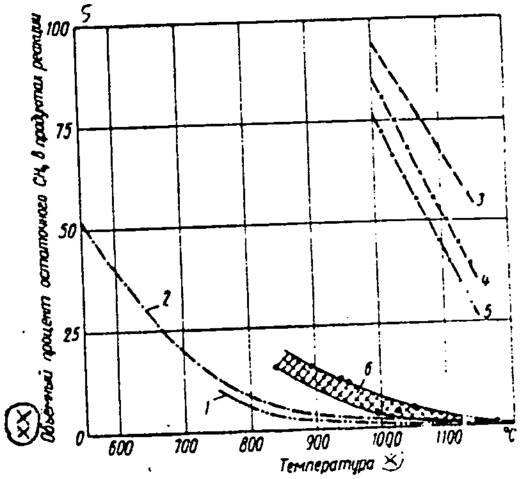

Fig. 5 - Methane decomposition intensity in different conditions. ⓧ - Temperature; (xx) - Volume of residual CH_4 in combustion products expressed as a percentage. 1 - Equilibrium state by Pring and Fairlee (Ref.4); 2 - Equilibrium state by data of M.P.Vukalovich, V.A.Kirillin at al.(Ref.5); 3 - Duration of thermal decomposition 30 sec, by V.Trinks; 5 - Duration of thermal decomposition 5 min (by V.Trinks); 6 - Incomplete combustion of Moscow gas (88-92% CH_4) in a forging chamber furnace;

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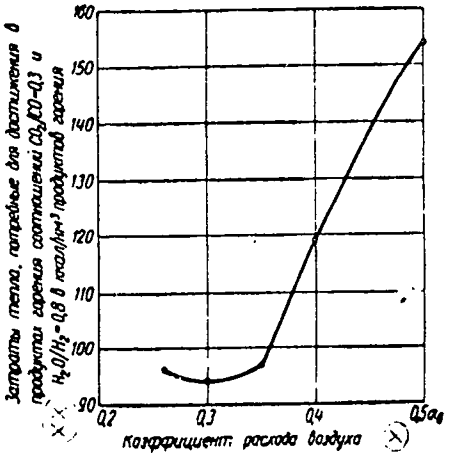
Fig. 5 (continued) average time of gas remaining in the furnace 3.8-6.7 sec (experiment data).

Fig. 8 - Calculated heat necessary for chemical reactions to reach $\frac{CO_2}{CO} = 0.3$ and $\frac{H_2O}{H_2} = 0.8$ (Experiment data used for the initial combustion product composition). ⓧ - Air consumption factor; (xx) - Heat consumption in kcal/m³.



Card 9/9

NIKIFOROV, V.P.; TSYPLAKOV, A.M.; LEBEDEV, V.I.

Selecting the number and the design of anodic pins for aluminum electrolytic cells with current fed from on top. TSvet. met. 33 no.10:56-62 O '60. (MIRA 13:10)

1. Vsesoyuznyy alyuminiyevo-magniyevyy institut.
(Aluminum--Elactrometallurgy)

NIKIFOROV, V.P.; KUROYEDOV, V.A.

Effect of deoxidizing heating on the state of the surface layer of steel. Kuz.-shtam. proizv. 5 no.6:31-34 Je '63.
(MIRA 16:8)

YANOVSKIY, M.I.; GAZIYEV, G.A.; NIKIFOROV, V.P.; MAKARENKO, V.G.; ZIMIN,
R.A.; MARININ, P.I.; FRANK, Yu.A.

Gas chromatograph with automatic pickup of samples from a flow.
Zav. lab. 31 no. 12:1526-1528 '65 (MIRA 19:1)

1. Institut khimicheskoy fiziki AN SSSR.

NIKIFOROV, V. S.

Manufacturing earth bricks in kolkhozes. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1952. 75 p. (V pomoshch' sel'skomu stroiteliu) (52-46754)

TH1421.N45

ZHIL'TSOV, V., NIKIFOROV, V.

Brickmaking Machinery

Assemblage SM-296 for making clay bricks. Sel'.stroi. 7 no.2:16-17 Mr-Ap '52.

9. Monthly List of Russian Accessions, Library of Congress, July 195~~3~~2 Uncl.

NIKIFOROV, Vasiliy Spiridonovich; MARTYNOV, T.P., redaktor; GLADYSHEVA, S.A., redaktor; LYUDKOVSKAYA, N.I., tekhnicheskiy redaktor.

[Making roofing tiles from cement and sand] Proizvodstvo tsementno-peschanoi cherepitsy. Moskva, Gos.izd-vo lit-ry po stroit. materialam, 1954. 42 p. (MLRA 8:10)
(Tiles, Roofing)

NIKIFOROV, Vasiliy Spiridonovich; KRYUKOV, V.L., red.; FEDOTOVA, A.F.,
tekhn. red.

[Building with sun-baked brick] Samannye postroiki. Moskva, Gos.
izd-vo sel'khoz. lit-ry, 1955. 84 p. (MIRA 11:9)
(Building, Adobe)

ARKHANGEL'SKIY, P.Ye., inzhener; ARKHIPOV, P.P., inzhener; VAS'KOV, M.P., agronom; ZHMUDSKIY, D.A., arkhitektor; IVANOV, A.P., arkhitektor; KIBIREV, S.F., arkhitektor; KRYLOV, N.V., inzhener-arkhitektor; KULAKOV, D.V., arkhitektor; MARTYNOV, P.F., inzhener; NIKIFOROV, V.S., inzhener; NOSKOV, B.G., arkhitektor; PETUKHOV, B.V., kandidat tekhnicheskikh nauk; RUDANOV, M.L., kandidat tekhnicheskikh nauk; RYAZANOV, V.S., kandidat arkhitektury; SOKHRANICHEV, N.S., inzhener-arkhitektor; TARASOV, D.I., arkhitektor; SHMIDT, N.E., kandidat arkhitektury; KHOMUTOV, Ye.Ye., arkhitektor; VOL'FOVSKAYA, V.N., redaktor; FEDOTOVA, A. F., tekhnicheskiy redaktor.

[Handbook on the construction of farm buildings] Spravochnik po sel'skokhoziaistvennomu stroitel'stvu. Avtorskii kollektiv: P.E.Arkhangel'skii i dr., avtor-sost. N.V.Krylov. Moskva, Gos.izd-vo sel'khoz.lit-ry. Vol.3 1955. 843 p. (Farm buildings) (MLRA 9:6)

NIKIFOROV, V., inzhener.

Preparing collective farm building materials enterprises for winter. Sel'.stroi. 11 no.9:4-6 S '56. (MLRA 9:11)

(Building materials industry)

N[illegible]

MARTYNOV, Pavel Timofeyevich; NIKIFOROV, Vasiliy Spiridonovich; KOBYLYAKOV, L.M., redaktor; BALLOD, A.I., tekhnicheskiy redaktor.

[Local building materials in agriculture] Mestnye stroitel'nye materialy v sel'skom khoziaistve. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1957. 484 p. (MIRA 10:11)

(Building materials)

NIKIFOROV, V., inzhener.

[redacted]

Organising the quarrying of stone on collective farms. Sel'. stroi. 11 [i.e. 12] no.2:15-17 F '57. (MIRA 10:4)

(Quarries and quarrying)

NIKIFOROV, V., inzh.

Every collective farm can kiln lime. Sel'. stroi. 12 no.3:13-15 Mr '58. (MIRA 11:3)

1. Glavkolkhozstroy Ministerstva sel'skogo khozyaystva RSFSR.
(Lime-kilns)

ACCESSION NR: AP4011438 S/0076/64/038/001/0041/0046

AUTHORS: Bakhman, N.N. (Moscow); Nikiforov, V.S. (Moscow)

TITLE: Condensed mixtures with strong burning rate dependence on the particle size of the components

SOURCE: Zhurnal fiz. khim, v. 38, no. 1, 1964, 41-46

TOPIC TAGS: burning rate, incendiary mixture, particle size, tungsten and potassium perchlorate, aluminum and iron oxide

ABSTRACT: Experiments were carried out with mixtures $W + KClO_4$ and $Al + Fe_2O_3$ to show that the burning rate (u) of condensed mixtures containing a non-volatile component depends strongly upon its dispersity. The burning rate of $W + KClO_4$ can be changed 40-50 fold, and of $Al + Fe_2O_3$, 20-30 fold by changing the particle size of the metal. If both components pass over into the gaseous state, the rate of burning is changed by only a few times (2-4) on changing the particle size of the components. The $u(d^{-1})$ curve for $W + KClO_4$ mix-

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ACCESSION NR: AP4011438

tures is shown in fig. 1. orig. art. has: 2 figures, 4 tables and 4 equations.

ASSOCIATION: Akademiya nauk SSSR, Institut fizicheskoy khimii (Academy of Sciences, Institute of Physical Chemistry)

SUBMITTED: 06Sep62 DATE ACQ: 14Feb64 ENCL: 01

SUB CODE: PH, MA NO REF SOV: 010 OTHER: 000

Card 2/~~3~~2

F.A.

NIKIFOROV, V.V.

/81

F.

2 h. [illegible] FUELS. Nikiforov, [illegible] (F.) (Leningrad: Mashgiz, [illegible], [illegible] pp. 1.50 rbls; abstr. in Fuel Econ. ([illegible] Fuel Econ.), Mar. 1952, 39). Three articles are [illegible]: on the gasification of fine grained vegetable fuel, [illegible] wood [illegible] gas producers, [illegible] changeover of [illegible] to gas fuel.

N/5
741.151
.N6

NIKIFOROV, V V , ED.

Konstruktsii i eksploatatsionnyye kharakteristiki dizeley (construction and operational characteristics of diesels) Moskva, Mashgiz, 1949.

95 P. diagrs., tables (Moscow. Nauchno-Issledovatel'skiy Dizel'nyy Institut, Kniga 12)

At head of title: Russia. Ministerstvo Tyazhelogo Mashinostroyeniya.

NIKIFOROV, V. V.

Technology

Materials in building Diesels, Leningrad, Mashgiz, 1952

Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

NIKIFOROV, V. V.

Modification of erythrocytic diameter in Botkin's disease. Klin. med., Moskva 29 no.7:65-69 July 1951. (CLML 21:1)

1. Of the Faculty Therapeutic Clinic (Head -- Active Member of the Academy of Medical Sciences USSR Prof. A. L. Myasnikov), Naval Medical Academy, Leningrad.

SMUZIKOV, B.A., polkovnik meditsinskoy sluzhby; NIKIFOROV, V.V., podpolkovnik meditsinskoy sluzhby

Examination of military personnel in peptic ulcer and chronic gastritis. Voen.-med.zhur. no.9:52-54 S '61. (MIRA 15:10)
(STOMACH--DISEASES)

SOV/115-59-2-6/38

3(6)

AUTHOR: Nikiforov, V.V.

TITLE: Indicated Internal Measuring Apparatus for Rings and Bushings (Indikatornyy nutromer dlya kolets i vtulok)

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 2, p 15 (USSR)

ABSTRACT: The internal measuring apparatus suggested by the author has produced good results, both as regards precision and capacity, and particularly when measuring deviations in internal diameters of bushings with a nominal dimension of 35 mm. The individual parts of this instrument are carefully described and illustrated. There are 2 diagrams.

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SOV/115-59-9-15/37

22(2,3), 28(2)

AUTHOR: Nikiforov, V.V.

TITLE: Measuring Small Differences of Angular Speeds of Two Pulleys

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 9, pp 29-30 (USSR)

ABSTRACT: The author describes a method of determining small differences in the rpm numbers of a driving and a driven shaft. Such measurements are required for determining the slip rate of a friction clutch, etc. At the Laboratoriya detaley mashin MVTU imeni Baumana (Laboratory of Machine Parts of MVTU imeni Bauman) this system was used for determining the slip rate of drive belts on pulleys. For this purpose, one contact was installed on a textolite plate on each shaft. The contacts closed the measuring circuit thru four brushes. The measuring contacts were closed simultaneously in case of equal rpm numbers. Then, a 2 microfarad mica capacitor was charged and the needle of a microammeter with a range of 75 microamps was deflected. Electric power, 96 volts,

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S/145/60/000/009 [illegible]
D221/D304

AUTHOR: Nikiforov, V.V., Engineer

TITLE: Experimental determination of rigidity coefficients of parts joined by a bolt

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye, no. 9, 1960, 74 - 77

TEXT: The tensile effort, P_o in a tightened bolt connection due to load application is

$$P_o = V + P \frac{C_b}{C_b + C_c}, \qquad (1)$$

where V is the preload, and P is the external load; C_b and C_c are the coefficients of rigidity of bolts and joined components.

$$C_b = \frac{E_b F_b}{l_b},$$

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where E_b is the modulus of elasticity of the bolt material; F_b is the cross section of the bolt, and l_b is the calculated length of the bolt, and this is taken somewhat larger than the thickness of joined components in order to consider the deformation of threaded connection. Similarly, $C_c = \frac{E_c F_c}{l_c}$. To determine F_c it is assumed that the stresses of the bolt head and nut are transmitted to components by cones with generatrices at 45° to the axis of bolt and diameter of truncation equal to the size across the flats. For simplification, these cones are replaced by cylinders of equal areas. The experiments carried out by the author refer to cases where the bolt takes up additional external load, and the contact between the joined components is relieved from force of the preload. Wire strain gauges were cemented to the bolt, and the stress was measured by a mirror galvanometer. The end faces of cylinders were ground The coefficient C_b was assessed experimentally in a special device, whereas that of the component was determined by

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NIKIFOROV, V. V.

Cand Tech Sci - (diss) "Study of the performance of group bolt assemblies." Moscow, 1961. 23 pp with diagrams; (Ministry of Railways USSR, Moscow Order of Lenin and Order of Labor Red Banner Inst of Railroad Transport Engineers imeni I. V. Stalin); 120 copies; price not given; (KL, 7-61 sup, 242)

NIFIFOROV, V.V.; SEMICHKOVSKIY, Yu.A.

Rheostat-type pickup of movements. Izm.tekh. no.7:4-5 Jl '62.
(MIRA 15:6)

(Recording instruments)

NIKIFOROV, V.V.

Displacement pickup with electric-spark recording. Izm.tekh. no.9:17-18 S '62. (MIRA 15:11)

(Electric instruments)

NIKIFOROV, V.V.

Measuring the braking period with an electric timer. Izm. tekh. no.3:23-24 Mr '64. (MIRA 17:8)

ROGOV, M.M.; NIKIFOROV, Ya.D.

Hydrological study of the Amu Darya Delta. Trudy GOIN no.28: 83-112 '55. (MIRA 9:6)

(Amu Darya Delta)

NIKIFOROV, Ya.D.

Some characteristics of channel processes in the region of a stream's discharge into a body of water. Trudy GOIN no,28:137-151 '55. (MLRA 9:6)
(Sedimentation and deposition) (Rivers)

RODIONOV, Nikolay Aleksandrovich; NIKIFOROV, Ya.D., red.; SOROKINA, M.I.,
red.; ZAHKH, I.M. tekhn. red.

[Hydrology of the region around the mouth of the Don River]
Gidrologiia ust'evoi oblasti Dona. Pod red. IA D. Nikiforova.
Moskva, Gidrometeor. izd-vo, 1958. 94 p. (MIRA 11:9)
(Don River—Hydrology)

NIKIFOROV, Ya.D.

State Oceanographic Institute of the Main Administration of Hydrometeorological Service attached to the Council of Ministers of the U.S.S.R. Biul.Okean kom. no.3:5-6 '59.
(MIRA 13:4)

(Oceanographic research)

ALMAZOV, A.M., doktor geogr. nauk; BONDAR, K.; VAGIN, N.F.; GEDERIM, V.; D'YAKONU, K.[Diaconu,C.]; MITSE,P.[Mită,P.]; STENESKU,V.[Stanescu,V.]; STENESKU, S.[Stanescu,S.]; **MAYSTRENKO**, Yu.G.; MIKHAYLOV, V.N., kand. geogr. nauk; NIKIFOROV, Ya.D., kand.tekhn. nauk; RAY, I.A.; RODIONOV, N.A.; MINENKO, V.M., red.; ZARKH, I.M., tekhn. red.

[Hydrology of the region of the Danube estuary] Gidrologiia ust'evoi oblasti Dunaia. [By] A.M.Almazov i dr. Moskva, Gidrometeoizdat (otdelenie), 1963. 382 p. (MIRA 17:1)

1. Gosudarstvennyy okeanograficheskiy institut Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR (for Mikhaylov, Nikiforov, Rodionov).
2. Dunayskaya gidrometeorologicheskaya observatoriya Upravleniya gidrometeorologicheskoy sluzhby Ukr.SSR (for Vagin, Ray).
3. Institut gidrobiologii AN Ukr.SSR (for Almazov, Maystrenko).
4. Nauchno-issledovatel'skiy institut gidrotekhniki Komiteta vodnogo khozyaystva Rumynskoy Narodnoy Respubliki (for Bondar, Gederim, D'yakonu, Mitse,, Stenesku, V., Stenesku, S.).

KOSTYANITSYN, Mikhail Nikolayevich; NIKIFOROV, Ya.D., kand. tekhn. nauk, nauchn.red.; MIRENKO, [illegible], red.

[Hydrology of the estuary region of the Dnieper and Southern Bug] Gidrologiia ust'evoi oblasti Dnepra i IU.Buga. Moskva, Gidrometeoizdat, 1964. 334 p. (MIRA 18:[illegible])

NIKIFOROV, YE.

21(2) PHASE I BOOK EXPLOITATION SOV/2708

Atomnaya energiya i flot; sbornik statey (Atomic Energy and the Navy; Collection of Articles) Moscow, Voyenizdat, 1959. 232 p. (Series: Nauchno-populyarnaya biblioteka) Number of copies printed not given.

Ed.: Ya. M. Kader; Tech. Ed.: A.M. Gavrilova; Ed. and Compiler: L. D. Chernous'ko, Engineer, Captain.

PURPOSE: This book is intended for the general reader.

COVERAGE: The papers in this collection discuss in popular style, and on the basis of data published in the Soviet and non-Soviet press, problems of the use of atomic and hydrogen weapons in combat operations at sea. The collection includes reports on the damaging factors of a nuclear explosion and on the immense power of this weapon of mass destruction. A number of articles are devoted to the antinuclear defense of ships and of shore objects, and to the introduction of nuclear power plants in naval vessels. Also included in the collection are papers dealing with the future prospects for naval use of nuclear energy, and with the construction of the world's first atomic icebreaker, the "Lenin", which is expected to play an important part in the further conquest of the Arctic regions. The collection also contains papers published in the journal Sovetskiy flot in 1955 - 1958, in revised and supplemented form.

Frolov, I., Engineer Commander. Penetrating Radiation
Aleksandrov, A., Engineer Lieutenant Colonel, and O. Kostev, Engineer Major. Base Surge and Its Shock Effect 53
Frolov, I., Engineer Commander. Radioactive Contamination 58
Abrosimov, P., Captain, and V. Vladimirov, Engineer Captain. Antinuclear Defense of a Ship 66
Mirgirenko, G., Professor, Doctor of Technical Sciences, Engineer Captain. Defense of Ships Against Explosions 75
Abolishin, P., Captain. Means of Antinuclear Protection of Ships of Foreign Navies 82
Khokhlov, P., Candidate of Technical Sciences, Engineer Commander. Antinuclear Defense of Light Ships 89
Galin, V., Engineer Colonel. Antinuclear Defense of Objects Ashore 96
Frolov, I., Engineer Commander. Radiation Reconnaissance 110
Alekseyev, N., Engineer Colonel. Decontamination on a Ship 121
Polyakov, N., Engineer Captain. Protecting Ships Against Radioactive Contamination 128
Sedov, A., Docent, Candidate of Technical Sciences, Engineer Lieutenant Colonel. What is Dangerous in Testing of Nuclear Weapons 134
Khokhlov, P., Candidate of Technical Sciences, Engineer-Commander. Microclimatizers on Ships 147
Nikiforov, Ye., Lieutenant Colonel of Medical Service. Sanitary Processing on a Ship 152
Bauman, A., Docent, Candidate of Historical Sciences, Captain. Atomic Weapons and Some Problems of Naval Tactics (According to Data From the Foreign Press) 158
Uvarov, A., Docent, Candidate of Technical Sciences, Engineer Sub-Commander. American Submarines With Atomic Engines (According to Data From the Foreign Press 170
Mikhaylov, P., Candidate of Technical Sciences, Engineer Lieutenant Colonel. Atomic Depth Bomb (According to Data From the Foreign Press) 194
Rudnitskiy, A., Engineer Rear Admiral. Atomic Power Plants on Ships 197
Solntsev, F., Docent, Candidate of Technical Sciences, Engineer Captain. Use of Atomic Engines in Ships 203
Zvonkov, V., Corresponding Member of the Academy of Sciences of the USSR, Honored Worker in the Field of Science and Technology of the RSFSR. Atom-Powered Ships 211
Varvarov, N., Guards Colonel. Atomic Seaplane of the Future (According to Data From the Foreign Press) 217
Chernous'ko, L., Engineer Captain. The World's First Atomic Icebreaker, "Lenin" 225

AVAILABLE: Library of Congress (UF767.C59)

NIKIFOROV, Ye. G.

Experimental study of the mechanism of primary wave formation due to winds. Dokl. AN SSSR 105 no.1:87-89 N '55. (MIRA 9:3)

1. Arkticheskiy nauchno-issledovatel'skiy institut. Predstavleno akademikom V.V. Shuleykinym.
(Waves)

NIKIFOROV, Ye.G.

Relationship between currents and waves produced by wind. Izv.AN SSSR Ser.geofiz.no.12:1450-1460 '56. (MIRA 10:10)

1. Arkticheskiy nauchno-issledovatel'skiy institut.
(Waves) (Ocean currents)

NIKIFOROV, Ye.G.

Changes in the compactness of the ice cover as related to its dynamics. Probl. Arkt. no.2:59-71 '57. (MIRA 11:12)
(Ice on rivers, lakes, etc.)

[illegible]V, Yu.G., Cand Geog Sci -- (diss) "Certain ~~[illegible]~~ [illegible]

wind agitation in connection with the formation of a field of

velocities of wind currents and stirring of (sea ~~waters~~." [illegible]

~~[illegible]~~, 1959. 9 pp including cover (Arctic and Antarctic Sci ~~[illegible]~~

Res ~~[illegible]~~ Inst of the ~~[illegible]~~ [illegible]

150 copies (KL,3[illegible]-59, 102)

NIKIFOROV, Ye.G.

Relation between the fields of wind waves and currents. Trudy Okean. kom. 10 no.1:22-30 '60. (MIRA 14:6)

1. Arkticheskiy i antarkticheskiy institut.
(Winds) (Waves) (Ocean currents)

GUDKOVICH, Z.M.; NIKIFOROV, Ye.G.

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Computation of tidal currents by Hansen's method. Trudy AANII 210:249-272 '61. (MIRA 14:11)

(Arctic regions--Tides)

[illegible]DK[illegible], [illegible]; [illegible], [illegible].

Steady [illegible]

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Some hydrodynamical effects in unsteady currents due solely to the wind. Dokl. AN SSSR 140 no.2:358-360 S '61. (MIRA 14:9)

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(Atmosphere) (Winds)

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AUTHORS: Nikiforov, Ye.G. and Trofimov, G.I.

TITLE: Experimental investigation of the vertical circulation in wind-generated flow

SOURCE: Modelirovaniye yavleniy v atmosfere i gidrosfere; trudy Pervoy mezhduvedomstvennoy konferentsii 22-26 noyabrya 1960 g. Moscow. Izd-vo AN SSSR, 1962, 93-99

TEXT: The results are given of model studies of vertical circulation in seas caused by winds. In the model experiments a glass trough 75 cm deep, 40 cm wide and 9 m long was filled with water and had a wind tunnel fitted on top of it. This tunnel had a ventilator capable of producing flow of air at 4000 m^3/hour. In addition to the action of wind, waves could be produced by a special generator. The effects of wind and of the wave generator acting separately or simultaneously were studied. The velocity of flow in water was measured by means of semiconductor probes, special small vanes, cinematography of the motion of suspended particles and by

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Experimental investigation ...

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visual observation. The air flow was measured with a Pitot tube or a pneumatic instrument. Capacitance probes and cinematography were used to measure the parameters of surface waves. The vertical flow in the upper part of the water was downward, whereas in the lower part it was upward. In the surface layer the flow represented a partly-submerged stream which attracted increasing masses of the surrounding water. Convective instability of the water or the air in the apparatus did not affect the structure of the flow or the formation of surface waves. Due to irregularity of the surface waves, the vertical circulation suffered continuous oscillation. The effect of waves alone and of waves combined with wind was essentially the same. Experiments were carried out also with a layer of kerosene on top of water in a transparent trough 150 cm long, 20 cm wide and 70 cm deep, again fitted with a wind tunnel above it. The air velocity in this series of experiments was constant (5 m/sec); below this velocity no waves were formed on the kerosene surface. Under steady-state conditions in the kerosene there was no flow in the underlying water. The circulation in the kerosene and the dimensions of waves on its surface depended on the thickness of the

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kerosene layer. If the kerosene layer was sufficiently thin (e.g., 16 cm) it became wedge-shaped with the kerosene-water boundary no longer horizontal and the thicker end of the wedge at the wind-tunnel entry. In kerosene the boundary between downward and upward flow was much higher in the middle of the trough than at its ends or sides. Horizontal circulation was observed near the kerosene-water boundary. In other respects the results for kerosene were similar to those observed for water. There are 5 figures.

ASSOCIATION: Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut (Arctic and Antarctic Scientific Research Institute); Leningradskiy institut vodnogo transporta (Leningrad Institute of Water Transport)